REMARKS

The specification has been amended to make editorial changes including those noted in the Official Action to place the application in condition for allowance at the time of the next Official Action.

A substitute Abstract of the Disclosure is provided on an accompanying separate sheet.

Claims 1-8 were previously pending in the application. Claims 1-8 are canceled and replaced with new claims 9-26. Accordingly, claims 9-26 are presented for consideration.

Claims 1-4 and 6-8 are rejected as anticipated by GEYER 2,620,683.

Reconsideration and withdrawal of the rejection are respectfully requested because the reference does not disclose or suggest means for transmitting hydraulic power to a piston adapted to act in parallel with means for transmitting mechanical power, the hydraulic power being supplied by a hydraulic energy reservoir connected to a single volume defined by a wall of the piston, the hydraulic reservoir being adapted to recover hydraulic power and the means for transmitting mechanical power constituting means for controlling the position of the piston and also means for locking the position of the piston, as recited in new claim 9 of the present application.

By way of example, Figure 1 of the present application shows a means for transmitting hydraulic power at chamber 25 to piston 30. As disclosed on page 10, line 32, through page 11, line 2 of the present application, the actuator combines means for transmitting hydraulic power and means for transmitting mechanical power which act in parallel and which are disposed coaxially. The hydraulic power is supplied by a hydraulic energy reservoir connected to a single volume (chamber 25) defined by a wall 31 of the piston 30 and by walls 23, 24 of a cylindrical body 20. The hydraulic reservoir 50 is adapted to recover hydraulic power. The means for transmitting mechanical power constitute means for controlling the position of the piston and also means for locking the position of the piston, as disclosed on page 10, lines 6-31 of the present application.

GEYER describes a dual drive actuator comprising a piston dividing a cylinder into two chambers 41, 42, not a single volume as recited in claim 9 of the present application. The hydraulic supply means of GEYER supplies hydraulic fluid to both chambers 41, 42. A cylindrical extension 43 of the piston 40 slides in cylinder 23. A shaft 50 is coaxial to the piston 40 and connected to the piston 40 via a screw bolt system 56, 57. An electric motor 100 drives the shaft into rotation and a clutch between the electric motor and the shaft controls the rotation of the shaft. The shaft 50 and the piston 40 are linked such that a

displacement of the piston is accompanied by a rotation of the shaft and a rotation of the shaft is accompanied by displacement of the piston.

When hydraulic power is to be used, the clutch is released and the shaft is no longer connected to the electric motor. When electrical power is to be used, the clutch is engaged. However, the drive sources are separate, as disclosed at column 1, lines 10-19 of GEYER. GEYER does not disclose or suggest that the means for transmitting hydraulic power to the piston is adapted to act in parallel with the means for transmitting mechanical power, as recited in claim 9 of the present application.

Since the means for transmitting mechanical power and the means for transmitting hydraulic power are separately operated, the position of the piston can be modified by the sole action of the means for transmitting hydraulic power. Accordingly, GEYER does not disclose or suggest that the means for transmitting mechanical power constitute the means for controlling the position of the piston, as recited in claim 9 of the present application.

In addition, since the means for transmitting mechanical power does not act in parallel with the means for transmitting hydraulic power, the piston is free to move independent of whether the means for transmitting mechanical

power is operating. Accordingly, GEYER does not disclose or suggest that the means for transmitting mechanical power is also the means for locking the position of the piston, as further recited in claim 9 of the present application.

As the reference does not disclose that which is recited, the anticipation rejection is not viable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1-8 are rejected as being anticipated by HEESE 3,823,758.

Reconsideration and withdrawal of the rejection are respectfully requested because the reference does not disclose or suggest that the means for transmitting mechanical power constitutes a means for locking the position of the piston, as recited in new claim 9 of the present application.

Column 8, lines 1-60 specifically lines 34-44 of HEESE disclose that deenergization of solenoid 92a closes valve 92 and prevents flow of hydraulic fluid from the chamber 83 to the accumulator 84. It should be noted that the check valve 93 also prevents flow from the chamber 83 to the accumulator 84. Thus, when the piston 74 is in its fully extended position, hydraulic fluid is prevented from flowing from the cylinder 73. Due to the substantial and compressable nature of the hydraulic fluid, the

hatch cover is locked in its open position and cannot fall shut even if electrical power failure should occur.

Accordingly, locking of the piston in HEESE is obtained by locking the hydraulic circuit which comprises control valves, solenoids and switches. The means for transmitting mechanical power do not lock the position of the piston. HEESE requires a complex hydraulic circuit to lock the piston and does not disclose or suggest that the means for transmitting mechanical power constitute means for locking the position of the piston, as recited in claim 9 of the present application. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 10-22 depend from claim 9 and further define the invention and are also believed patentable over the cited prior art.

Claim 5 is rejected as being unpatentable over GEYER in view of MURATSUBAKI 6,068,448. This rejection is respectfully traversed.

MURATSUBAKI is only cited for the teaching of a hydro-pneumatic accumulator. MURATSUBAKI does not teach or suggest what is recited in claim 9 of the present application. As set forth above, GEYER does not disclose or suggest that which is recited in claim 9. Since claim 5 is rewritten as claim 16 and

depends from claim 9 and further defines the invention, the combination of references would not render obvious claim 16.

In addition, as noted above, GEYER discloses a cylinder piston system with two chambers. One of ordinary skill in the art would not provide a reservoir as a source of hydraulic power, because such a reservoir would not enable hydraulic control of the piston in both directions. Therefore, one of ordinary skill in the art would not be motivated to combine MURATSUBAKI with GEYER to render claim 16 of the present application obvious.

New claim 23 provides a piston slideable within a cylindrical body and having a wall defining a single volume and a mechanical power transmission device that transmits mechanical power to the piston and controls the position of the piston and locks the position of the piston. Claim 23 further provides an hydraulic power transmission device that transmits hydraulic power to the piston and operates in parallel to the mechanical power transmission device. The comments above regarding claim 9 are equally applicable to claim 23.

New claims 24-26 depend from claim 23 and further define the invention and are also believed patentable over the cited prior art. In addition, the dependent claims also include features not disclosed by the references. For example, claim 25 provides that the cylindrical body has an interior wall such that part of the piston is between an inner wall of the cylindrical

body and the interior wall, and the other part of the piston is between the interior wall and a threaded rod. Claim 26 provides that a part of the piston comprises a nut that engages the threaded rod. These features are not disclosed in the reference and thus these claims are believed patentable regardless of the patentability of the claims from which they depend.

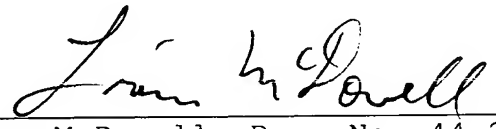
Accordingly, it is believed that the new claims avoid the rejections under §102 and §103 and are allowable over the art of record.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



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